

PROPOSAL COVER SHEET

**Norwich Public Schools
May 2010 Application For Eno Board Grant**

Authorized under the
Grand Prize Award through HB Communication and Karen Urgitis

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Grant Proposal: *Project ENO: Making Learning Come Alive*

1. Project Summary (2-3 paragraphs)

- Describe the 21st century teaching/learning environment you will create in your classroom with the addition of an interactive whiteboard. What changes will occur in your classroom and what impacts are anticipated as a result of this new technology? What are the objectives of your project?

The Polyvision ENO interactive whiteboard (IWB) is an innovative tool that will enrich my third grade students' experiences in science. This interactive technology will inspire and encourage the young scientists in my classroom to go beyond the textbook. The IWB will provide them with opportunities to explore the amazing world of science through the use of hands-on demonstrations. Students will be able to enter data from experiments into a spreadsheet and project a graph of the results. The students and I will be able to interact with images, text, and software and then save our work for review or assessment. We can take virtual field trips to places that may be too dangerous to explore, like a real volcanic eruption. The students can take pictures of flowers with a digital camera, insert them into a document, and project the images on the IWB. These image can be manipulated as students label the flowers' parts directly on the IWB. The ENO allows the children a meaningful way to express and demonstrate what they have learned. This new technology will allow me to move away from paper and pencil tasks. It will foster curiosity in my students so that they may become motivated and engaged participants in the learning process. Combining technology and science will captivate the diverse population in my third grade classroom.

My objectives for this project are to:

1. Increase student engagement
2. Increase student performance in the area of science.

The first objective directly relates to the Educational Technology Standards for Teachers Strand 1: Facilitate and Inspire Student Learning and Creativity. I will use my knowledge of the third grade science concepts to advance student learning by creating lessons that are appealing and meaningful. This objective is also aligned with the Uncas School Improvement Plan (2008-2011) to improve student engagement through heuristic methods to increase academic rigor. Studies have shown that the use of interactive whiteboards can be associated with a 16 percentile point gain in achievement (Marzano & Haystead, 2009). The use of voting devices, graphic aids, visuals, and reinforcing applications that acknowledge correct answers with virtual applause are features that have a significant relationship with student success.

My proposal is to integrate technology with the third grade science curriculum through the acquisition of the Polyvision ENO Interactive Whiteboard. This tool will revitalize the way that science content is presented to my students and increase their independence and productivity. My expectations are that my students will become interested in science and highly motivated to participate. Therefore, student engagement and achievement will increase. The introduction of this tool will create a dynamic 21st century learning environment in my classroom and insure that all students have access to updated technology.

2. Classroom/Technology Overview (1-2 paragraphs)

- Briefly describe currently available technologies (hardware and curriculum-based software/applications).
- Include obstacles you encounter in teaching/learning with your current technologies.

The Polyvision ENO board will be used to update the six available student computers in the classroom. These computers have outdated operating systems that are unable to run many programs that require Adobe Reader. The ENO board will grant the teacher greater access to the Web and provide computer access to all students. The ENO supports the Microsoft Windows 2000 operating system and Smart Notebook software installed on my computer. The student computers are equipped with Kidspiration and PowerPoint software as well.

Currently, I use a television that is connected to my teacher computer to display presentations, lessons, and websites that can't be accessed on the student computers. This method allows for limited viewing by my students and lacks the interactivity that the ENO will provide.

3. Eno Board (1-2 paragraphs)

- Describe the new technology to be used in the 21st century learning environments. List how it will be used to enhance teaching/learning in your classroom.

The Polyvision ENO will transform my classroom into a 21st century learning environment by enhancing my students' opportunities for interactive learning in the area of science. Many of the following activities are based on effective teaching strategies according to Robert Marzano. Various graphic organizers, such as KWL charts, Venn diagrams, and concept maps will be created so that the students may write, record, and save important information and observations. RMeasiteach, Smart Notebook and PowerPoint software will be utilized to design many of the lessons. Students will be able to take digital pictures of seeds they have collected, import the images into the selected program, and then sort them into groups by common attributes. Small groups of students will produce a picture dictionary of simple machines they find in the classroom to help build vocabulary in the content area. Interactive word games and sequencing activities are easily created using the Smart Notebook templates. Students will manipulate sentence strips to order the steps in a plant's life cycle. The ENO graphing tool will be used to record the growth of the Brassica plants we grow. Collaborative learning will be promoted when pairs of students work together to design PowerPoint presentations on the three types of rocks. This product will be showcased on the large screen so that everyone can share and discuss, perhaps at a Curriculum Night or other school event. The students can digitally record themselves during a science experiment or activity, such as making simple machines with Legos. They can import the clip into a document and then add audio explaining how the product works. The interactive Jeopardy game that I developed for my unit on geology can be projected onto the IWB so that the whole class can review important concepts before a test. The instant polling feature will be integrated into each unit of study. It will collect data and provide instant feedback regarding student knowledge.

The opportunities for interactive learning and presentations are limitless. As I become more familiar with the technology, many new and varied lessons will be developed in other subject areas as well. This IWB will allow me to inspire my students and make science meaningful.

4. Alternative/Innovative Teaching and Learning Models (1-2 paragraphs)

- Describe any innovations or changes that will be made to the current classroom structures, including scheduling, pacing of courses, method of delivery of courses, location of learning activities, assessments, instructional data management and others.

The ENO will increase the opportunities for interaction and feedback in the classroom. It will be used for whole class teaching so that I may provide structured group interaction when introducing a new concept, establish background knowledge, or demonstrate procedures. It will also be used to review previously learned ideas. In small, teacher-led groups, the ENO works well for mini-lessons on specific skills. The IWB can be used to support student center learning when it is used to play recorded lessons, instructions, or demonstrations. Cooperative groups can utilize the board to express their knowledge in presentations through the use of images, text, and sound.

The ENO lends itself to a multimodal approach that combines touch, graphics, text, and audio. There are multiple options for inputting and receiving information. Visual learners will be captivated by the colorful images and nonlinguistic representations. The graphic organizers provide visual displays that can be manipulated. Auditory learners will respond well to recorded verbal instructions. The ENO can be used to build vocabulary in the content area for my ELL students. Other students with behavioral issues like Attention Deficient Disorder may find the ENO appealing. Reinforcement features, like applause, immediately recognize student effort, and may also help promote positive behavior. The ENO interactive whiteboard addresses the multiple learning styles and abilities of all of my students.

5. Curricula and Assessment (1-2 paragraphs)

- How will curricula be modified to integrate this technology and other 21st century skills and make use of the new learning environments and tools?
- What changes will need to be made to traditional assessments as a result of the new 21st century learning environments?

IWB technology will support and enrich the goals in the science curriculum. The ENO will allow me to teach from the computer rather than outdated textbooks or static curriculum resources. I will be able to take advantage of the many resources of the online world. This tool will provide my classroom with more current learning materials. My students will become fully engaged with these new online experiences.

The ENO will change the way that students have traditionally been assessed. Interactive polling technology may take the place of written assessments. The students and I will receive instant feedback that can be collected, organized, and analyzed. The students' performance may also be evaluated by how well they demonstrate their knowledge of the science content when developing products that utilize technology. Assessments can also be based on how well the students communicate information using a variety of media, such as an online worksheet or Webquest. These performance indicators are aligned with the National Educational Technology Standards for Students.

6. Professional Development (1-2 paragraphs)

- Describe strategies you will incorporate to help acquire skills and competencies to use the technologies and curricula available in the new 21st century learning environments.
- Explain how you will address National Educational Technology Standards for Teachers.

I will address National Educational Technology Standards:

2. *Design and Develop Digital–Age Learning Experiences and Assessments*

5. *Engage in Professional Growth and Leadership*

The district's Technology Coordinator will provide an initial four hours of training on the use of the Polyvision ENO Board. I will continue to seek out opportunities to increase my knowledge of the interactive whiteboard by discussing ideas with other colleagues and attending workshops. I have already acquired professional development in the use of the Smartboard and its software, creating and developing interactive lessons, and the Senteo Smart Response system. This knowledge has been integrated into my teaching. I will further develop those skills by creating a collection of science lessons.

As Grade Three Team Leader of the Uncas School Wide Data Team, I will exhibit leadership qualities by promoting and demonstrating the effective use of the IWB in the classroom. I will collaborate with other staff members in the Norwich system to explore the use of the IWB in their classrooms. An IWB presentation will be given at an Uncas faculty meeting or in-service.

7. Sustainability (1 paragraph)

- Describe what you will do to ensure the 21st century learning environments you create through this project will be sustained. Consider how you will provide technical support and keep equipment operational.

The 21st century learning environment will continue to evolve as I integrate the IWB technology into other areas of the curriculum. I will continue to seek funding sources for additional equipment, such as the Quizdom Student Response System. This assessment tool will enhance instruction by allowing immediate insight into my students' learning. They will be able to instantly respond to questions, and I will be able to collect data regarding their knowledge. I will ensure that the IWB equipment remains operational by following the manufacturer's instructions and educating my students on the proper use of the IWB and the pen. Common trouble shooting procedures will be followed, and the Polyvision Support website will be consulted, if a problem should occur. Norwich Public Schools Technical Support Service and/or the Technology Coordinator may be contacted, if the problem cannot be resolved.

8. Project Management, Monitoring, and Evaluation (1-2 paragraphs)

- Describe who will be responsible for ensuring that the project will be implemented as proposed and provide details for how that will be done.
- Describe how educational aspects of the project will be monitored and adjustments made if necessary.
- Describe how attainment of project objectives will be evaluated and measured.

The Technology Coordinator and I will be responsible for ensuring that the project is implemented. After installation and training, I will invite the Technology Coordinator into my classroom to observe the IWB in use. The principal will also observe the use of the IWB during classroom walkthroughs and observations.

I will monitor the project by maintaining a log of IWB activities that I have used in the classroom. Created lessons will be submitted on the District's M drive on the Intranet. Success will be measured by improved student engagement as measured by the principal's Short Visit Protocol, my ease of use of the IWB, and my growing collection of lessons that incorporate IWB technology. Analysis of my students' science assessments will be further indications of the project's success.